Course Description:
The frequency of falls and fall-related injuries can be a challenge for any institution. Substantial costs are associated with falls, including the cost of care associated with injuries, increased lengths of stay, poorer quality of life, liability as well as loss of trust. In an inpatient setting, a multidisciplinary collaborative effort is required by all key stakeholders to improve patient safety. The strategies developed and utilized should address both management and prevention in the provision of patient centered quality care. This presentation will describe how a multidisciplinary collaborative effort was utilized in an inpatient rehabilitation center to enhance clinical outcomes through a multi-strategy approach. The presenters will review fall statistics and related outcomes in an inpatient rehab setting; provide an overview of several fall risk assessment tools and strategies; discuss steps for assessing and developing education and training strategies; and demonstrate how project management was deployed from a multidisciplinary approach. Participants will have the opportunity to practice developing their own project management plan during this session.

Learning Objectives:
1. Define falls and discuss the incidence, prevalence and impact of falls in an inpatient rehab setting
2. Provide a brief overview of steps used in project management and application in the examination of the processes and techniques used in fall prevention
3. Discuss how to identify “key” stakeholders
4. Describe how a blended learning model was selected for the education and assessment of competency with nursing
5. Discuss the importance of utilizing multidisciplinary collaboration for results
6. Discuss the strategies and fall risk tools available for identifying at risk patients

I. What is a fall?
A. Definitions
1. NDNQI: A patient fall is a sudden, unintentional descent to the floor with or without injury to the patient that results in the patient coming to rest on the floor, on or against some other surface, on another person or on an object.

2. CMS Definition in RAI Manual for LTC: Unintentional change in position coming to rest on the ground or onto the next lower surface (e.g. onto a bed, chair or bedside mat), but not as a result of overwhelming physical force.

3. Joint Commission & CDC definition: Neither actually defines a fall. JC recommends that each organization come up with their own definition of a fall.

4. WHO: A fall is defined as an event which results in a person coming to rest inadvertently on the ground or floor or other lower level. Fall-related injuries may be fatal or non-fatal though most are non-fatal. http://www.who.int/mediacentre/factsheets/fs344/en/
5. Our Organization: An unplanned and unassisted descent to the floor

B. Fall Rate
Number of Falls/ 1000 patient days

II. Fall Risk Statistics
A. How big is the problem?
1. General statistics
   - In 2009, more than 20,400 older Americans died from injuries related to unintentional falls
   - In 2010 over 2.3 million older Americans were treated in emergency departments for nonfatal injuries from falls and more than 662,000 were hospitalized.
   - 2003, 1.5 million people 65 and older lived in nursing homes; this may rise to 3 million by 2030 if current rates continue.
   - The costs of fall-related injuries are often shown in terms of direct costs.

   Direct costs: what patients and insurance companies pay for treating fall-related injuries.
   Example: Fees for hospital and nursing home care, doctors and other professional services, rehabilitation, community-based services, use of medical equipment, prescription drugs, changes made to the home, and insurance processing. Does not include: disability, dependence on others, lost time from work and household duties, and reduced quality of life.
   - Total cost of fall injuries for older Americans was estimated to be $30 billion in 2010. By 2020 the annual direct and indirect cost of fall injuries was estimated to reach $54.9 billion.
   - ~5% of adults >65 yrs. live in nursing homes

   CDC

2. Negative Consequences:
   - Include: morbidity, further functional decline & premature institutionalization. Resultant burden: physiologic & psychological injuries, increased LOS, litigation.

   Murphy, TH, Labonte, P., Klock, M. & Houser, L. (2008)

   - Falls can result in serious physical and emotional injury, poor quality of life, increased LOS, admission to LTC and increased cost; also associated with higher anxiety and depression scores, loss of confidence & increased fear of consequences associated w/falls.


3. Falls in Nursing Homes (CDC)
   - Between ½ and ¾ of NH residents fall each year
   - Patients often fall more than once. The average is 2.6 falls per person per year
   - ~35% of fall injuries occur among residents who cannot walk
   - About 1,800 people living in NH die each year from fall-related injuries
   - Frequent injuries resulting from falls: hip fractures and head injuries that result in permanent disability and reduced quality of life
   - Common causes:
     Muscle weakness & walking/gait problems,
     Environmental hazards (wet floors, poor lighting, incorrect bed height & improperly fitted or maintained W/Cs),
     Medications (i.e. sedatives, anti-anxiety, CNS acting meds), and
     Other (poor foot care, poorly fitting shoes, etc.)
4. Falls in Inpatient Rehab:
   a. General information
      - Higher number of falls in IP rehab vs. acute care. IRF has been reported between 2.92 and 15.9 falls/1000 hospital days versus 2.45-3.73 falls/1000 patient days in general hospitals. 

      - Fall rate varies based on diagnosis. Patients with neurological diagnoses tended to have a higher than average rates of falls

      - Correlation between FIM score and the risk for fall.

      - Variation in prevalence of falls based on time of day and shift; peak time for falls 8-10 am and 2-3 pm; a temporal pattern of fall related injury in patients w/stroke (48% during day, 32% during evening & 20% @night) & BI (40% during day, 12% during evening & 48% @night) was observed (i.e. time of day); 71% of falls occurred w/in the resident’s rooms (greater during the day 42% than evening 33% than night 25%), 18% occurred in their bathroom (greater during the day 40% than evening 31% than night 29%) and 9% occurred in the therapy gyms (higher percentage of these falls occurred during 3-4 pm).
        *Frisna, PG, Guellnitz, R.& Alverzo, J. (2010).*

   b. NDNQI stats
      Mean Fall Rate for Inpatient Rehab Settings= 6.41
      - 25th Percentile is 3.77
      - 50th Percentile (Median):  5.87
      - 75th Percentile is 8.36
      NDNQI reports in acute rehab a mean of 1.25 injury falls/1000 patient days

   c. Our fall statistics:
      - FY13 Fall Rate= 4.9  (combined lower to floor 6.1)
      - FY12 Fall Rate= 4.7  (combined lower to floor 6.2)
      - FY11 Fall Rate= 6.7  (combined lower to floor 8.3)

   d. Why were we concerned?
      - Our fall rate was not significantly higher
      - Bump up in severity of injury from our falls
      - Concern about patient safety
      - Customer satisfaction- consumer’s confidence in our abilities may decrease
      - Impact of acquired injury- liability & reimbursement standpoint

B. Trends in the Literature Regarding “Best Practice” in Fall Prevention Strategies/Programs
   1. Feedback alone is not effective
      - Feedback alone regarding quality initiatives/outcomes is not enough and may not impact patient outcomes; educational workshops with opportunities for consultation, in addition to feedback regarding quality initiative outcomes was more meaningful.
2. Collect and analyze data related to the fall
   - Tendency to rely primarily of the clinician’s judgment of patient factors & accomplishing various cognitive tasks to assess the patient for multiple risk factors. Need to identify those who are high risk for falls, carry out a variety of prevention strategies, and pursue prevention of fall injury given that hospital falls cannot be entirely prevented.
   
   
   - Recommendations: analysis of data related to each patient fall, assessment of staff knowledge, conducting checks for safety hazards & safety equipment and engaging staff and patients in problem-solving.

   *Murphy, TH, Labonte, P., Klock, M. & Houser, L. (2008)*

3. Involve frontline staff
   - Involve nursing as well as front line staff who will help “drive” the program. Conduct ongoing brainstorming based on data.

   *Murphy, TH, Labonte, P., Klock, M. & Houser, L. (2008)*
   
   - Fall prevention programs are typically complex, involving multiple components that depend on leadership involvement & the cooperation of front-line staff from multiple disciplines, including staff education, establishing teams, piloting the intervention with input from front-line staff to refine the intervention, leadership support, and continuous quality improvement procedures such as Plan-Do-Study-Act or the Institute for Healthcare Improvement Framework for Spread to promote unit level buy in


4. Need a multifaceted and multidisciplinary approach
   - Multistrategy fall prevention program are effective in reducing number of falls with a decrease in serious fall-related injuries. Strategies need to be incorporated into all levels within a hospital organization as part of routine care to sustain gains.

   
   - Use of a fall prevention program based on statistical evidence and the development of a multidimensional, multidisciplinary program to reduce risk of falling and number of events; merit to creating a culture where all healthcare providers use evidence to develop strategies for risk reduction and quality improvement.

   
   - A multidisciplinary approach to fall risk assessment can lead to a reduction in the number of IP falls. Advantages: simple, low cost & easy to apply, however, needs to be combined with effective fall prevention measures (i.e. fall risk ID bracelets, lowered beds, bed alarm systems, medication review). However a multifaceted and multidisciplinary approach is better at targeting individual fall risk factors; direct supervision and hourly nursing rounds show promise as being effective.

   *Leep Hunderfund, AN, Sweeney, CM, Mandreker, JN et al (2011)*

   - High performance organizations are structures composed of “high performance teams with a set of operating principles”. Key characteristics of systems that require individuals/teams to work more closely and effectively together:
     1. Non punitive approach to error reporting
     2. Error-proofing new products, programs & services
     3. Team training and organizing

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4. Direct communications
5. Fatigue management
6. Organization of information processing
7. Mitigation of unwanted side effects of change

Manasse, HR. (2009).

5. Ongoing review current policies, procedures and interventions
   - Annual review of nursing P&P, fall precautions and revise as needed
   Murphy, TH, Labonte, P., Klock, M. & Houser, L. (2008)
   - Fall risk assessment should be performed on admission & repeatedly monitored during their rehab stay; staff education on the main focus of fall prevention programs; determine trends for falls provides data for redesigning processes to focus on fall reduction; and, fall reduction programs are dynamic and must be re-evaluated for effectiveness and possible modification.

6. Creation of new tools/strategy based on data analysis
   - Assessment for Fall Risk and a protocol, including creation of ‘toolbox’, to enhance implementation of protocols. Interventions implemented and data collected and reviewed: hourly rounding implemented; patient satisfaction reviewed; falls were monitored.
   Murphy, TH, Labonte, P., Klock, M. & Houser, L. (2008)

III. Fall Risk Assessment Tools:
A. Tools Currently Utilized
   Systematic review of published studies that test the validity and reliability of fall-risk assessment tools was conducted in 2007. It was found that the fall risk assessment tools exist that show moderate to good validity and reliability in most health service delivery areas, however few tools were tested more than once or in more than one setting. So no single tool can be recommended for use in all settings or for all subpopulations within each setting.

1. STEADI: A tool kit for health care providers. Includes information and tools needed to assess and address older patient’s fall risk. Resource for outpatients

2. Fall Risk Assessment and Screening Tool (FRAST): A self-assessment tool developed for the general population to score themselves on 15 items. Identifies the individual as a low fall risk or makes the recommendation to see their primary care physician, includes comments about physical and occupational therapy. This screening tool is similar to STEADI

3. Heinrich II Fall Risk Model: Used to assess a hospitalized patient’s risk of falling. Focuses on eight independent factors: confusion, disorientation, and impulsivity; symptomatic depression; altered elimination; dizziness or vertigo; male sex; administration of antiepileptics; administration of benzodiazepines; and poor performance in rising from a seated position in the Get Up and Go test. Addresses only intrinsic factors and does not address extrinsic fall risk factors.
4. **Morse Fall Scale**: Rapid and simple assessment tool designed for acute care use. Looks at history of falling, secondary diagnosis, use of ambulatory aid, IV, gait and mental status. Rates patients as no risk, low to moderate risk or high risk.

5. **St. Thomas Risk Assessment Tool (STRATIFY)**: Used to identify clinical fall risk factors in the elderly and predict chances of falling. A risk assessment score of 0-5 is derived by rating the presence or absence of 5 risk factors: falls, agitation, frequent toileting, visual impairment and transfer and mobility score of 3 or 4+ (combining the transfer and mobility score of the Barthel Index). Scores of 2 or more are considered high risk.

- In a systematic review three risk stratification systems were discussed, STRATIFY, Morse Fall Scale and the Heinrich Fall Risk Model. The authors cautioned that the majority of tools researched are specific to the institution or patient population of study, so when selecting a tool you must take into account the setting and population you are using it with. Overall accuracy of each tool is greatly affected by setting and population. MFS was found to have the highest sensitivity, STRATIFY the highest specificity however the Heinrich was found to be the easiest to use and score.

  *Simpson JR, Rosenthal LD, Cumbler EU, Likosky DJ. (2013)*

6. **Schmid Fall Risk Assessment Tool**: Developed for Acute Care. Is comprised of five sections: mobility, mentation, elimination, prior fall history (past 6 mos.) and current medications. Four choices under each of the first four sections to score patient as and one point for any medications. Score of 3 or more = high risk.

7. **Five Times Sit to Stand**: used across a variety of patient populations to measure functional mobility and strength, however, has research has developed specific patient population outcomes to indicate further fall risk testing. (rehabmeasures.com)

8. **Berg Balance Scale**: 14 item scale that rates patients as low, medium or high fall risk.

**B. Marianjoy Fall Risk Assessment tool**

Developed for an inpatient rehab patient population. Consists of 9 measures in a yes or no format: communication, impaired cognition, altered bowel/bladder elimination, unilateral neglect, LE hemiparesis, sensory deficits, history of fall is past 3 months, impulsive behavior, and special medications. Score of 4 or more= high risk for falls.

**C. What Are You Using In Your Facilities?**

**IV. Recap of the Benefits of a Multistrategy Fall Prevention Program**

**A. Avoiding the “Blame Game”**

- Engage support from the organization’s management team is key.
- Important in terms of consistency with the organization’s mission and overall objectives related to patient care, allocation of employee and monetary resources to develop and implement any program, and roll out of any program house-wide

**B. Multidisciplinary vs. Multstrategy Approach**

- Multidisciplinary: Individuals from 2 or more disciplines working in parallel, coming together for specific issue/concern
-Goal: to create an interprofessional learning environment that promotes safer and enhanced patient centered care
-Team formation is critical; having the “right” members participating will lead to success
-Multidisciplinary model no longer sufficient to meet complex healthcare needs/environment nor does 1 professional have all the knowledge needed to provide patient centered care alone.
-True interdisciplinary practice is more of a partnership between various healthcare team members and the patient in a collaborative, participatory & coordinated approach in shared decision making around the patient’s care.


-Intervention to increase use of the bed alarm in an urban hospital increased use of the alarm however, there was no statistical or clinically significant effect on fall-related events or physical restraint use.

Shorr, RI, Chandler, AM, Mion, LC, Waters, TM et al.

Multistrategy is the key strategy for providing the best quality & most effective care

V. Project management
A. Definition
- Projects are done to meet the needs/concerns of either internal or external customers. Projects are initiated because a need or an opportunity has presented itself
-A “project” has two characteristics, it is temporary and it is unique.
-Temporary means the project has an end point. If your project is ongoing, you may have a problem, or it really is not a project
-Each project may have “unique” elements in common with other projects (i.e. focus on different problems, involve different teams, different training needs, etc.)
-Project management is something that has developed in the work environment to use to support the needs of their individual projects.
-One aspect of project management is technical (use of analytical tools and data reporting, process-oriented) and human (ability to understand and manage people)

B. Overview of Various Strategies:
1. 6 Sigma (DMAIC-Define, Measure, Analyze, Improve, Control): An improvement system for existing processes falling below specification and looking for incremental improvement. A disciplined data-driven approach and methodology for eliminating defects in any process. Uses a prospective approach

2. QAPI: Quality Assurance & Performance Improvement initiative launched by CMS for Nursing Homes

3. CQI: Continuous Quality Improvement focuses on the “process” rather than the individual, recognized both internal and external “customers” and promotes the need for objective data to analyze to improve processes. CQI is an approach to quality management that builds upon traditional quality assurance methods by emphasizing the organization and systems. Uses a prospective approach

4. LEAN: Creating more value for customers with fewer resources, goal is zero waste with focus on perfect value for the customers

5. PDSA: A prospective approach. 4 steps in this model are
   1. Plan: plan a change or test how something works
2. Do: carry out the plan
3. Study: Look at the results. What did you discover?
4. Act: decide what actions need to be taken to improve

5. **RCA (Root Cause Analysis):** a retrospective approach to error analysis that requires “rigorous application of established qualitative techniques”. Two steps involved in the RCA:
   a. Data collection: establishment of what happened through structured interviews, document review, and/or field observation. These data sets are used to generate a sequence or timeline of events proceeding and following the event
   b. Data analysis: in iterative process to examine the sequence of events generated above with the goals of determining the underlying factors: establishment of how the event happened by identification of active failures in the sequence; and, establishment of why the event happened through identification of latent failures in the sequence that can be generalized.

C. **Identifying Your “Key” Stakeholders**
   1. **Definition**
      A stakeholder is someone whose interests are affected either by the work you are doing or the end result of your project.
      Therapists and nurses are stakeholders as well in fall prevention since their reputation and possibly their performance are at stake
   2. Who will the team report to?
      Important to have a “senior” nursing administrator as someone to “champion” your initiative(s). Need a leader who will have the resources of time & support staff to lead.
   3. Who needs to be at the table?
      Need a multidisciplinary approach and define roles and responsibilities. Identify ancillary members.
      Need to have a process and schedule (i.e. timeline) for monitoring and reporting status towards goals
      Common goals, parameters, objectives
      Provide training so everyone involved on the team can participate
   4. Who/which departments will be affected by any change in process or roll out of a program?
      Insure that members understand they will serve as ‘champions” for your program. They will help sell and deliver the message during the roll out of the program/initiative; will assist in monitoring effectiveness as well as promote a change in culture
      Engage front-line staff in order to achieve “buy-in” as the program in initiated
      Empower frontline staff in helping identify opportunities for improvement, potential safety concerns as well as recommending potential strategies for change
      Be aware that non-clinical departments will also likely be effected by changes in clinical practice (housekeeping, materials management) and be sure to engage them in the rollout
   5. Who were our “key stakeholders”?
      - Senior leadership
      - Nursing
      - Therapy
      - Clinical Education
      - Risk Management
      - Materials Management
      - Environmental Services
**Need to respect all stakeholders/members of the team & model on the floor/unit**

D. Potential Limits and Challenges In Project Management
- Some members of the project team may have larger interests than just your project. Need to work closely with all members to ensure that everyone is on board with the common goals of the project.
- Other managers are stakeholders if their projects are impacted by your work (i.e. using some of their resources). Need to be aware of what is occurring around you and some negotiation may need to occur so that you can accomplish your end results with minimal resistance.
- There may be some politics going on.
- Need to be creative and persevere

E. General Components of Project Management Approach:
1. Plan
   - Gather data: historical data to help identify root causes of high risk areas/incidences; identify indirect costs; what are the barriers to using equipment
   - Conduct a worksite analysis; evaluation of employee needs, existing equipment (par levels, are employees trained, patient population, units/depts. that have had problems, etc.)
   - Conduct a cost analysis
   - Identify risks, develop contingency plans (plan for change)
   - Review the literature-what have others done; provides an evidence based approach to helping solve the problem
   - Brain storm ideas for your plan; contact vendors; engage frontline staff in evaluation and trial of various products; identify any changes in policies &/or procedures
   - Develop a goal statement, which serves as the purpose of the project and describes the project itself in measurable terms
   - Identify the scope of the project-the products and/or services to be provided
   - Develop a plan for communication-how to keep people informed
   - Develop a plan for any education and training required
   - Develop a plan for any required follow up (i.e. investigation) when incidences arise
   - Develop a plan for monitoring and reporting; frequency; data to be monitored; dissemination of information

   **Our Plan:**
   - Project defined
   - Scope of project
   - Identified stakeholders
   - Data: Historical data reviewed, data to be collected and monitored
   - Timeline for roll out, communication, monitoring and reporting

   **Take away:** Systematically think through and analyze your project.

2. Execute
   - Involves all activities necessary to accomplish the work/scope of the project.
   - Identify a roll out date; communicate the plan and roll out of any related initiatives
   - Assign project activities to the team members and handle any required changes
   - Work with leaders and employees to implement any training/education
Select Pilot area- identify small group to pilot it on before whole site roll out.
Evaluate success of implementation along the way (be patient, be consistent, be supportive & encouraging)
Be aware of barriers that may arise during implementation; sometimes difficult to change a culture
Identify risks and identify strategies for how you will deal with them
Create a realistic project schedule/timeline in writing; include a communication plan
Model accountability-try to help those get back on track without embarrassing them in public
Bumps along the way

**How We Executed our Plan:**
-Communication tools used
-Roll out of education and training
-Roll out of revised prevention strategies
-Bumps we encountered along the way

3. Monitor
Evaluate outcomes; monitor data on a monthly basis & identify improvement opportunities and areas that require additional focus &/or improvement. This will help ensure that tasks are completed in order and that you are on target or to identify need for change
Need to have a narrow focus vs. global (similar to short term goals leading up to long term goals); what needs to be done now versus later
Involve your customer along the way. Pulse check with employee and patient satisfaction
Monitor patient satisfaction and safety
Most important is managing any changes in scope; may need to be open in explaining why certain things may not be added/deleted from the scope and why
Review annually and modify as appropriate
Transparency in data information sharing

**Outcome Monitored:**
-Fall incidence
-Patient complaints
-Injuries resulting from falls
-Employee satisfaction

4. Closure
Involves termination of the project and the delivery of the end result
Review lessons learned & recognize and celebrate accomplishments
Have a closing meeting. Reflect on events-identify what has been learned from this project (what did we do right, what would we do differently, etc.)
By providing recognition and acknowledgement, they may want to collaborate with you on the next project
When the work team is done, need to realize that this is a living process, requiring an “owner” who will conduct ongoing monitoring

Where Are We Now?
VI. Education and Training
-As professionals, we have a wide variety of technology based tools available for the delivery of instruction. However, tools alone (i.e. learning modules) are not sufficient for creating instruction that will influence learners, change behavior and ultimately improve organizations. To be effective in your instruction, you need to match the right instructional strategy to the content being delivered, whether online or in the classroom

-Employees and organizations are jointly responsible for creating an environment of competent employees who provide patient centered care that achieves quality outcomes. Organizations are challenged with providing timely, relevant, cost-effective education and training. For all healthcare providers, especially nursing, added pressure to demonstrate proficiency in a variety of skills. Lecture is a more traditional approach, however, there are disadvantages—may not appeal to various learning styles, lack of learner participation, require lengthy educator preparation & can be costly. An alternative is to use technology/e-learning, which has many benefits: convenience, program design flexibility, adherence to adult learning principles & accommodates various learning styles.

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Gerkin, KL, Taylor, TH & Weatherby, FM. (2009)

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-Interprofessional education fosters collaboration and teamwork among the healthcare team. Need to understand or appreciate others roles. Interprofessional education increases understanding & the practice of collaboration and teamwork, along with modeling by educators & professionals


A. Needs of the Adult Learner
-Adults move from dependency to self-direction, draw upon their experience for learning, ready to learn when they assume new roles & want to solve problems & apply new knowledge immediately

-Six assumptions about adult learning:
1) Need to know
   Adults want to know why they need to learn something before undertaking learning. Instructors must help adults become aware of their "need to know" and make a case for the value of learning.

2) Self-concept
   Adults believe they are responsible for their lives. They need to be seen and treated as capable and self-directed. Facilitators should create environments where adults develop their latent self-directed learning skills

3) Prior experience
   Adults come into an educational activity with different experiences. Individual differences in background, learning style, motivation, needs, and interests exist. This results in a need to individualize the teaching strategy to meet the learner’s need. Need to tap into the learner’s experiences through experiential techniques (discussions, simulations, problem-solving activities, or case methods)

4) Readiness to learn
   Adults are ready to learn things they need to know and do in order to deal effectively with real-life situations. They want to learn what they can apply in the present.

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5) Learning orientation
   Adults are task-centered/problem-centered in their orientation to learning. There is a desire to learn what will help them perform tasks or deal with problems they confront in everyday situations.

6) Motivation to learn.
   Adults tend to be responsive to some external motivators (e.g., better job, higher salaries), though the most powerful motivators are internal (e.g., desire for increased job satisfaction, self-esteem). However, this motivation or desire can be negatively impacted secondary to training and education that ignores adult learning principles.

Take away:
- Avoid using a “one size fits all” approach when trying to facilitate learning
- Know your audience (i.e. everyone has different experiences, learning styles, and levels of readiness for learning)

B. Teaching and Learning Strategies
   - Focus on experiential techniques that tap into the experience of learners (i.e. group discussion, problem-solving, case methods, simulation exercises, games, and role-play), instead of primarily using lecture
   - Using a combination of the teaching strategies may be more effective.

1. Lecture
   - Most widely used in teaching adults
   - Lectures are useful for presenting new or up-to-date information as well as summarizing material
   - Suggest using in 15- to 20-minute sections and including some type of active learning activities to energize participants for the next round of information.
   - Lectures can help spark an interest in new topics or motivate further research on a topic.

2. Problem-Based Learning
   - An instructional strategy that encourages critical thinking and problem-solving skills.
   - The instructor serves as a facilitator to stimulate, guide, integrate, and summarize discussions.
   - Strategies for problem solving with adults include games, simulations, and role play.

3. Case Studies
   - Narratives, situations, data samplings, or statements that present unresolved and provocative issues, situations, or questions.
   - Case studies bring real-world problems into the training. Involve active participation and may lead to some creative solutions.
   - Usage can enhance retention, recall, and use of learning outside the training.

4. Educational Games
   - Involve students in competition or achievement in relationship to a goal. The game teaches and is fun.
   - Many are simulations modeling real-life problems or crisis situations.
   - One advantage that the participants may need to confront their own attitudes through involvement in making decisions, solving problems, and reacting to results of their decisions.

5. Role Play
   - Used to assist participants in practicing skills.
Role play is an experience around a specific situation that contains varying viewpoints or perspectives.

Situations are written, and different perspectives or roles are handed out to different people who discuss the situation. The situations should be realistic and relevant.

Successful scenarios help develop a skills

6. Discussion

- A great teaching method for active learning since it encourages development of critical thinking skills.
- When using this strategy, you will need to pose a question/problem, monitor discussion, and then summarize the points at the end
- This method helps more in retention of information and transfer of knowledge in new situations than simply using a lecture

What Strategies Did We Use?

- Problem-based learning
- Role playing

C. Designing the Learning Experience

1. Formal Learning
- Structured, curriculum driven and role or level-based learning determined by the organization in terms of what the employee needs to learn/know
- Component involving identified corresponding competencies
- Limited but important role in building employees abilities
- Can be delivered via: a classroom learning context (physical or virtual), self-paced technology based learning (i.e. web based training, webinars & learning apps) &/or by providing access to online diagnostic and assessment tools.

2. Informal learning
- Semi-structured or unstructured learning driven by needs of the employee
- Occurs spontaneously on the job through problem-solving, interaction w/colleagues and use of the Internet
- More self-directed- on-demand learning is here.

Van Dam, N. (2012).

D. Blended Learning

1. Definition
- A mix of learning strategies, methods, media and delivery modalities that support learning objectives and maximize the efficiencies and effectiveness of learning.

Van Dam, N. (2012).

- Bringing together or integration of face-to-face classroom instruction with online activities, classroom time is replaced by these activities. A combination of traditional approaches with online technology. Application of learning content is critical factor in a student’s learning using this strategy. Previous learner experience with web-based learning can affect their perception of online learning. You may need to devote more time upfront with assisting students at the outset of the online course, so they possess the necessary computer skills.


2. Considerations of Benefits and Challenges
- Online learners may spend more time on the task than face-to-face learners
- A more effective medium for various types of educational content and learners.
-Can reinforce learning retention, save organizational money & integrate effectively into an employee’s daily life/routine.
-Content can be broken into “chunks”. There is no perfect blend that will solve or meet every learning need
-Requires preparation. Need to communicate the goals, requirements, and any prerequisites in advance so the participant knows what is expected of them and have time to prepare.
-Need to build in up front guidance for the instructors.

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<tr>
<th>Potential Benefits</th>
<th>Potential Challenges</th>
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<tr>
<td>Flexibility for both instructor and student</td>
<td>Technology issues/constraints for both instructor &amp; student</td>
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<tr>
<td>Convenience for both instructor and student</td>
<td>Time and work to prepare &amp; deliver the course</td>
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<td>Participation by all students and more thoughtful participation</td>
<td>Difficulty designing and blending the course materials</td>
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<tr>
<td>Ability to use electronic tools</td>
<td>Difficulty managing the course, esp. online discussions or resulting questions</td>
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<td>Independent learning by the student</td>
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To make the most of your learning program, ask yourself the following questions:
1. What learning delivery options make sense for your setting/organization
2. Who is your target audience? What are your goals?
3. What constraints need to be addressed?

3. **Trends in Literature to Support Utilization With Patient Safety Education**
- Evidence in Nursing literature to support use. The instructor serves more in the role of a “facilitator” to assist the participant in making the connection between the online environment and their clinical practice.

- Not always apparent from the literature which forms of learning suit individuals needs best or enable those to attain maximum benefit from the learning experience. Mixed reaction from participants with use of blended learning; range of e-learning usage included: no access to computers or e-learning materials or full computer access but no use of materials or occasional access to computers-those who did use the materials responded positively; some participants rated the use of e-learning materials as less effective than face-to-face training

- Amount of online instruction varies. Sloan consortium defines a course as blended/hybrid if 30-79% of the content is delivered online. Allied Health, medical and nursing schools are using this model. Key factor in effectiveness is the extent to which the course can accommodate the student’s preferences (i.e. a student who hates online learning or lacks discipline for it will not learn well); incumbent upon the instructor to design engaging activities online and during face-to-face to optimize learning; there may be more than 1 instructor.

*McGowan, LJ. (2010)*
**Best practices**: should have some exposure to teaching face-to-face and providing online education before tackling a blended method; sufficient support by your organization/institution is critical for success; technologies need to be current; technical support needs to be available; standards for design reduce confusion in students; starting and ending the course in the classroom allows the instructor to explain expectations and assist with and/or demonstrate technology

*McGowan, LJ (2010)*

-Trending for increasing educational access by increasing online and blended learning supports to meet the growing needs of the allied health workforce. Increased access can also provide individual learners pathways towards career advancement. Allows for an organization to deliver basic knowledge through online lectures. To become competent, students not only need to learn the content, they must demonstrate key clinical competencies in face-to-face settings. **ADDIE** instructional design: Analysis, Design, Develop, Implementation and Evaluation. This process involves:

1. Researching & gathering resources for each course
2. Developing an outline for content, sequence, learning objectives and outcomes, balance of face-to-face and online, technology and student learning assessment
3. Obtaining feedback from other faculty/content experts to revise and finalize design
4. Developing screen by screen content information
5. Collaborating with LMS administrators, IS when developing online courses
6. Obtaining feedback on final content once produced; testing is important
7. Delivering all courses to the students
8. Soliciting feedback and respond by modifying content as appropriate.

*Brandt, NF, Quake-Rapp, C., Shanedling, J., Spannus-Martin, D. & Martin, P. (2010).*

-Point of care learning is the implementation of learning within a practice setting. This requires consideration of multiple strategies, such as work based education (i.e. point of care), continuing education hours, and the range of teaching modalities (didactive, interactive, online and blended models). Effective learning and development occur along a continuum with sequential skill development.

-Learning is dependent on a community of practice, where members of a team share, discuss and learn through interaction. Nursing unit operational learning matrix: all staff partner, at different times and degrees, depending on learning (i.e. experienced staff being receptive and demonstrating positive learning attitudes and skills to assist others). The skills staff develops during courses in preceptorship, coaching, “teaching on the run” assist them to interact with new learners to share knowledge. This can only occur if well-coordinated and the team is organized and motivated.

*Henderson, A. (2011)*

### E. Competency

1. **Definition**

   -Assesses the interpersonal, decision-making and technical skills that meet practice standards within healthcare. Includes aspects of behavior that affect clinical performance

   -Continuous development, part of ongoing learning

   -Moving beyond discipline specific to engaging in interactive learning

   -Core competencies serve to:
     1) create a coordinated effort across the various health professions,
     2) guide the healthcare professional and development of organizational assessment strategies to measure outcomes,
3) provide a foundation/basis for development of a learning continuum, 4) facilitate discussion around whether the established competencies are meeting practice needs/demands, 5) allow for integration of interprofessional education content with accreditation standards, 6) provide available information to accreditors’ compliance with standards

Core Competencies for Interprofessional Collaborative Practice, American Colleges of Nursing, et al, 2011

- With multidisciplinary competencies, helps to have a unifying concept/idea
- Competency-based education focuses on what students need to know to be able to do/perform
  In varying and complex situations; focused on outcomes (competencies) linked to workforce needs as defined by both the organization and the profession. This focus involves more complex assessment, experiential learning assessment in the field, role play, use of standardized patients, etc.
- Large skill sets are broken down into competencies, which have levels of mastery; reinforce one another from basic to complex as learning progresses.
- Challenges: determining which competencies can be bundled together, designing learning experiences that support students as they practice using and applying these competencies, continual ongoing refinement; it’s a process and not a product

F. Design Used at Marianjoy

1. Phase 1-
   - Online videos
   - Patient scenarios
   - Tip sheets for reference
   - Skills check-out with in the moment coaching

2. Phase 2
   - Development of 3 online learning modules (Module 1: Safety techniques; Module 2: SBT & SPT; Module 3: Lowering & Assisting Patient up from Floor) with interactive questions
   - Patient scenarios
   - Skills check-out

VII. Now It’s Your Turn to Develop a Mini-Project Plan (See attached template worksheet)

IX. Debrief
<table>
<thead>
<tr>
<th>Project Management Worksheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify problem/concern/area of focus</td>
</tr>
<tr>
<td>List current data available</td>
</tr>
<tr>
<td>State scope of project</td>
</tr>
<tr>
<td>Develop the goal statement</td>
</tr>
<tr>
<td>Key stakeholders</td>
</tr>
<tr>
<td>Outline plan for execution</td>
</tr>
<tr>
<td>Plan for communication</td>
</tr>
<tr>
<td>Anticipated education and training</td>
</tr>
<tr>
<td>Future data collection and monitoring</td>
</tr>
<tr>
<td>Identify potential barriers</td>
</tr>
<tr>
<td>Develop the timeline</td>
</tr>
<tr>
<td>Anticipated potential costs associated with this project</td>
</tr>
</tbody>
</table>
References:

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• McGowan, LJ. Blended Courses: The Best of Online and Traditional Formats. Clinical Laboratory Science, 2010; 23(4): 205-211.


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• Orchard, CA, Curran, V & Kabene, S. Creating a Culture for Interdisciplinary Collaborative Professional Practice. Med Educ Online, 10 (11): 1-13


• Us Department of Education. US Department of Education study finds that good teaching can be enhanced with new technology (Internet). December 26, 2009 http://www2.ed.gov/news/pressreleases/2009/06/06262009.html

• Van Dam, N. Designing Learning for a 21st Century Workforce. Training & Development. 2012; April, 49-53


Additional Resources:
• Falls in Nursing Homes (CDC): http://www.cdc.gov/HomeandRecreationalSafety/Falls/nursing.html
• Centers for Disease Control and Prevention (CDC): www.cdc.gov
• STEADI: http://www.cdc.gov/homeandrecreationalsafety/Falls/steadi/index.html
• World Health Organization (WHO): www.who.int/en/
• Falls (WHO): http://www.who.int/mediacentre/factsheets/fs344/en/
• Percentage of Nursing Home Residents Experiencing One or More Falls within the Past 30 Days(Dept. of Health and Human Services): https://healthmeasures.aspe.hhs.gov/measure/28
• American Physical Therapy Association
• National Council on Aging (NCOA): http://www.ncoa.org/
• NCOA Fall Prevention: www.ncoa.org/improve-health/falls-prevention
• National Patient Safety Agency (NPSA): http://www.npsa.nhs.uk/

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